

### **REMARKS**

This is in response to the Office Action mailed February 24, 2006, and having a period for response set to expire on May 24, 2006.

Claims 7-12, 15, and 17-20 are pending in this application. Claims 7 and 12 are independent claims. Claims 8-11, 15, and 17-20 are dependent claims.

Claims 7-12, 15, and 17-20 have been rejected. Amendments to claims 7, 9, 11, and 12 are presented herein. Claims 7 and 12 have been amended per conversation with Examiners Leon Lum and Long Le. Claim 15 has been cancelled in this response.

The specification has been amended to improve form.

No new matter is being presented, and approval and entry are respectfully requested.

### **Changes To The Specification**

Changes have been made to the specification only to place it in preferred and better U.S. form for issuance. No new matter has been added.

### **Rejections Under 35 U.S.C. § 102**

In numbered paragraph 4 on pages 2 and 3 of the Office Action, the Examiner rejected claims 7-9, 11, and 17 under 35 U.S.C. § 102(b) as being anticipated by Zarling et al. (U.S. Patent No. 5,674,698). Applicants respectfully traverse these rejections for the reasons presented below.

Independent claim 7 recites, as amended, "a pump assembly aspirating the sample fluid and the reagent tag into the uptake channel, through the matrix, and into the reservoir to a predetermined level." The Zarling reference does not disclose an apparatus that is controlled using a pump assembly.

Thus, Applicants submit that independent claim 7 patentably distinguishes over the prior art. Claims 8, 9, 11, and 17 depend from claim 7 and are patentable over the prior art for the

reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art.

For example, claim 11 recites that “the matrix comprises one of micro-ground glass, micro-glass, plastic beads, nylon, a mesh, and a screen, and the matrix has physical barriers on opposite sides thereof.” These features are not disclosed by Zarling. Therefore, for at least this reason and the reasons set forth above with respect to claim 7, it is submitted that claims 8, 9, 11, and 17 patentably distinguish over the prior art.

Therefore, Applicants submit that claims 7-9, 11, and 17 patentably distinguish over the prior art. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections of these claims under § 102.

#### **Rejections Under 35 U.S.C. § 103(a)**

In numbered paragraph 8 on pages 4 and 5 of the Office Action, the Examiner rejected dependent claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Zarling in view of Wohlstadter et al (U.S. Patent No. 6,066,448).

In numbered paragraph 9 on pages 5-7 of the Office Action, the Examiner rejected independent claim 12 and dependent claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Zarling in view of new reference Klose et al (U.S. Patent No. 4,515,889).

In numbered paragraph 10 on pages 7 and 8 of the Office Action, the Examiner rejected dependent claims 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Zarling in view of Ekong et al (Journal of Immunological Methods, 1995).

In numbered paragraph 11 on pages 8 and 9 of the Office Action, the Examiner rejected dependent claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Zarling in view of Ekong, and further in view of new reference Hammock et al (U.S. Patent No. 6,342,395).

Applicants respectfully traverse these rejections for the reasons presented below.

Independent claim 12 recites, as amended, “an analysis target area extending from an end of an inner tube connected to the matrix, the inner tube extending into the reservoir to form a bubble; ... a pump assembly and a controller controlling the pump assembly to aspirate the sample fluid and the reagent tag into the uptake channel, through the matrix, and into the inner

tube to form the bubble at the analysis target area; a light source focused directly on the analysis target area where the bubble is formed."

According to the embodiment of the invention as recited in claim 12, sample fluid is aspirated into an uptake channel, through a matrix, and into an inner tube extending from the matrix into a reservoir. The aspiration of the liquid is controlled to form a bubble at the end of the inner tube. An analysis target area is located where the bubble is formed, and a light source is focused directly on the analysis target area where the bubble is formed.

As shown in Fig. 6C of the present invention, the light source 200 is focused directly on the bubble 171, which allows a direct read on the sample fluid, and detection is accomplished without any interference from materials used to construct a matrix or a reaction vessel wall. This enables more accurate and precise measurements. In contrast, the capture surface D9 shown in Fig. 29 of Zarling is surrounded by glass. Similarly, the cuvette 51 shown in Fig. 5 of Klose is enclosed. Thus, there is no unimpeded access to the sample fluid in either Zarling or Klose.

Therefore, Applicants submit that independent claim 12 patentably distinguishes over the prior art. Claim 15 has been cancelled in this Response. Claims 10 and 18-20 depend from claim 7 and are patentable over the prior art for the reasons discussed above. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under § 103.

#### **Request for Examiner Interview Prior to Next Office Action**

If the pending claims continue to be rejected after reconsideration of the claims, the Examiner is respectfully requested to contact the undersigned by telephone to arrange an Examiner Interview prior to issuance of the next Office Action.

#### **Examiner Interview**

On May 16, 2006, the undersigned Attorney Gilsdorf conducted an Examiner Interview with Examiners Leon Lum and Long Le. During the Examiner Interview, the Examiners indicated that adding a pump assembly to claim 7 and amending claim 12 to focus on the structure of the inner tube and placement of the analysis target area would overcome the cited references. Claims 7 and 12 have been amended as suggested by the Examiners.

## **Conclusion**

In accordance with the foregoing, it is respectfully submitted that all outstanding rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted to be in condition for allowance, which action is earnestly solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Finally, if there are any additional fees associated with the filing of this response, please charge the same to Deposit Account No. 502895.

Respectfully submitted,

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